



THE OFFICIAL JOURNAL OF THE RADIO ASSOCIATION OF ERIE

February
1993

QUA ^{W3GV} **RAE**

The Radio Association of Erie is a non-profit club, dedicated to serving the tri-state area by providing emergency communication during a civil disaster, as well as providing communication support for public service events. The club meets at 7:00 PM on the first Thursday of each month at the Red Cross Chapter House, 4961 Pittsburgh Avenue. Membership is open to any person interested in amateur radio. For membership information, contact Bob Schwimmer, N3FAW at 866-3027. A Tri-State Emergency 2 meter net is conducted weekly on 146.61 Mhz Sundays at 6:30 PM; ARES net on 146.61 Mhz Sundays at 9:30 PM. RAE Novice/Tech Net meets each Wednesday on 28.330 Mhz at 8:30 PM. A 6-meter AM net meets each Wednesday night on 50.52 Mhz at 9 PM.

NEXT SCHEDULED MEETING of R.A.E.

7:30 PM on February 4, 1993

at RED CROSS BLDG.

Speaker From Penelec

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FROM THE PRESIDENT'S CORNER

Dear fellow amateurs:

Our first meeting for the new year was attended by over 60 members. We had excellent reports from our committee chairman. Listed below are your current and active RAE committees and chairpersons. If you have an interest in becoming active on any of these, please contact the committee chairperson or myself.

Contest — Ron WB3DOM, Dick W3PIX
Education — Ron WB3DOM, Jim WR4W
Hamfest — Tom N3HPR
Membership — Bob N3FAW
Monthly News — Dan K3UFG
Property & Supplies — Eric KA3WUN
Public Relations — Dick W3GZO
Public Service — Eric KA3WUN
Repeater — Tony WB3KGT
Social — Tony WB3KGT,
Dave N3EOY & George W3ZQS

Our membership chairman Bob N3FAW reported over 175 paid up members for 1993 already ... thanks for your continued support of the RAE.

Hamfest '93 is underway. We had our first organizational meeting, committee chairpersons are actively working on your Hamfest now. As you know we were forced to find a new location for the

Hamfest. The Franklin Township Fire Hall and surrounding land offers a great location for a Hamfest with plenty of space for tailgating. Access to the Hamfest will be much more convenient for our out-of-town guests coming in on I-90 and I-79. Keep checking the QUA-RAE for the latest Hamfest updates.

Educational Classes will be starting February 15th at Central High School. See full page flyer in this issue. It is nice to see new club members get involved and thanks to Jim WR4W for his interest in the educational department.

Don't forget to check into the local weekly nets. The 10-meter net on Wednesday at 8:30 PM on 28.330; the 10-meter net on Sunday at 8:00 PM on 29.000 MHz; the 2 meter RACES net at 6:30 PM and the 2 meter Skywarn net at 9:30 PM on W3GV repeater 146.01/.61 Sunday evening.

Our next club meeting will be Feb. 4, 1993 at 7:30 PM at the American Red Cross. Coffee and cookies and the usual rag chew at 7:00 PM. Our speaker this month will be from Penelec. The topic will surely be of interest to us. Enjoy amateur radio to the fullest.

73, Tom N3HPR

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Check appropriate classes

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CODE

Novice _____ General _____

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(The only cost to this course is your textbook)

YACC

"Yet Another Computer Column"

I have often thought there may be some interest in a computer column in the QuaRAE. If there is enough interest among our readers in computers, we may be able to have a fairly regular column here. Please send contributions to the writer or call 866-3027. Any articles concerning IBM types, Commodore, Amiga, Macintosh and others are welcome. Hints, tricks, work-arounds, bug fixes, virus information, shareware, freeware, games, Windows -- all are eligible for inclusion. The writer and the QuaRAE editor reserve the right to edit, include or omit articles due to space limitations or suitability for the column.

In particular, the use of the computer in amateur radio can be of prime interest to club members. Logging, packet, call directories, mailing programs, data bases, spreadsheets, word processors can also be of interest. Hardware and software problems and solutions if known, or questions in search of solutions can be published. Since, my own experience is mostly with IBM types, I'll need support from others of you for other formats such as mentioned above. Naturally I'll need support in IBM types as well. I sure don't have a corner on answers. If sufficient interest does not develop, the column will die a natural death.

Everything in Amateur Radio



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So far I know of two recent computer nay-sayers who are now proud (?) and happy (?) computer owners. **Dan WS3M** and **Ron WB3DOM** now seem to be enjoying theirs. Dan has one or two Commodore 64's and Ron has an IBM type. Ron was going strong during the PA QSO party logging calls, counties and sections. (Yours truly did also.) We had a bug in the program, but expect to get it resolved before the next PA QSO party. It was written by K8CC; Jim, KJ3L is going to talk to him.

Seems the PA sections would not load under certain conditions. Ron and I both experienced the difficulty. It is shareware named PALOG for IBM. I used it in 1991 with no trouble, but when I tried to load it again in 1992, it burped: loaded only counties, not the ARRL sections. I was therefore unable to use it during logging, but did key in the calls later to get the dupes and reports. Still saved a lot of time.

Just for clarification, shareware is a term for programs distributed without charge, but which the program author *requests* a modest payment, usually from \$5 to \$30, if you find it of value. For some very complex systems I have seen larger amounts requested.

Conversely, freeware is distributed with no expectation of payment and is in public domain.

Many thousands of programs were offered free during the early PC days. They helped a lot of us do things we never could have done otherwise. A lot of very good programs are available in both methods of distribution.

Caveat: when you go to a hamfest or flea market, you will see tables with hundreds of disks at very low prices. I have found that a large majority of these disks are shareware and we are expected to send money if we use them. But in too many cases they contain only a sampling of the program and are useless unless you pay and register with the author, at which time they will send the real program! They are a disappointment if you don't realize this and expect a functional system. Nevertheless a good program can be well worth the modest cost in time saved and features it makes available.

Anyone who has done any amount of programming can appreciate the many hours it takes to write, debug and document a program which has any degree of complexity and value. So we want to comply with the shareware author's request and send payment, if we use the program regularly.....73,

Bob, N3FAW.

Send contributions, suggestions to:
129 E. Arlington, Erie, PA 16509

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Art Paavola, D.V.M.

Tom McClain, D.V.M.

Jeff Paavola, D.V.M.

Volunteer Examiners Report

The January FCC Test Session resulted in the following upgrades: Dr. Ronald Esper of Erie to Technician; Elkin Fowler N5YPU of Krum, Texas to Advanced; Aric Hartle of Tionesta to Technician; Greg Hoover of Lucinda to Technician; Ralph Lossie of Erie to Technician; James Shields KA3UVE of Lewis Run to General; James Stimpson of Meadville to Technician; Jeffrey Shields N3NPN of Lewis Run to Advanced, and James Curtis of Erie to Novice.

Gaining a partial upgrade were Bryan Rawa N3NNZ of Erie; Somchai Rimnongrva of Erie; James Wood KB3AAX of Edinboro and Judy Wellman of Union City.

VEs helping with the session were Henry Schultz W13U, Ray Keskinen W8HVK, Dick Waldinger N13Q, Roger Ball KW8M, Jim Adams WT3O, Dave Wellman WX3E, and Norma Vanderhoff W3CG.

The next test session will be held on Saturday,

February 6 at 8 AM, Room 107, Ahearn Hall, Villa Maria Campus, 2551 W. 12th Street. Charge for taking exams is \$5.60 except for Novice, which is free. Pre-registration is not required except for the handicapped who need special aids. For information, call (814) 665-9124.

In 1992, the Erie ARRL VEC VE Team gave a total of 335 exams, and the candidates numbered 221. Steve Nehez NX3I, who served faithfully during the year, must now retire from VE work to operate his own business, which is the Medicine Shoppe at Fairview. Bert VanHouten W3TPW is spending the winter months in Florida, and Dick Blasco KY3D is on leave while recovering from a hip replacement. VEs who helped with some of the 1992 sessions were Lee Robinson WA3HJC and Professor John Duda K3ED.

An extra test session coming on Sunday March 14, will be at the Conneaut, Ohio Hamfest, and the time will be 10 AM.

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"REFLECTIONS, Transmissions Lines and Antennas"
by M. Walter Maxwell, W2DU

This relatively new book on the ARRL book shelf is a must read for people interested in understanding antenna theory and practice. Mr. Maxwell is a noted antenna designer with exceptional credentials. He attacks the many myths that abound in the amateur ranks concerning low SWR, resonate length antennas, loss of reflected power, and impedance matching. He also explains the use of the Smith chart, the function of a transmatch and the advantage of choke baluns over transformer baluns. His discussion of truly all band HF antennas should be of great value to anyone operating those frequencies. Although there is math included to prove his arguments there is also much valuable information in plain language.

Here are some of his comments on multiband HF antennas:

"I hope I've convinced you of the necessity for an antenna tuner, so why not use it to fullest advantage and achieve multiband HF operation with the simplest, yet effective and efficient antenna? I'm speaking of a random-length dipole fed with either open wire line or ladder line. By random length, I mean any length at least a 1/4 wave at the lowest frequency of operation."

"A center-fed 1/4 wave dipole radiates with an effectiveness of approximately 95% relative to a 1/2 wave dipole, and has a terminal impedance of approximately 14-j1300 ohm. This terminal impedance yields an SWR of 424 to 1 on 300 ohm line.....with the low loss characteristics.....the results are good. This is what I use for 160-meter operation, an 80-meter 1/2 wave dipole, which is 1/4 wave on 160 and fed with 300 ohm line. It works very well."

Wow, an SWR 424:1 and it it works very well! Better read the book. After reading this section and Walt's comments on the G5RV, I modified mine into a similar dipole to the one described above. I use a tuner, a short run of RG8 to get out of the house, an old Heath kit Balun, a random length of 450 ohm ladder line, to a 92 foot dipole. Longer is better but shorter will work too. The balun is not required if you can bring the ladder line to a tuner with a parallel output. The feed line should come away from the dipole at 90 degrees for some distance before making turns and should not be run close to metal rain gutters, siding, etc. The legs of the dipole must be equal in length.

To quote my teacher "It works very well" on all frequencies for the old 5 bands 80 through 10. I do not have the WARC bands. Don't miss the very interesting chapter on choke baluns which can be used on coax fed antennas as well. The W2DU non-transformer choke balun is listed in the A.E.S. catalog under Unadilla (W2AU). The Van Gorden all-band dipole is also listed.

FUN!



John Edwards KI2U
78-56 86th Street
Glendale NY 11385

Shortwave listening? Why not! While SWLing may not be a part of amateur radio, there's no denying the very close relationship between the two hobbies. While CBing may have usurped SWLing as the main gateway to ham radio, thousands still get their first taste of hobby radio by listening to the international shortwave giants on a portable radio. In any event, it's a well-known fact that many hams are closet SWLs. As a matter of fact, more than one prominent DXer has been known to guard his top shortwave QSLs as jealously as many of his most-prized ham pasteboards.

So, whether the closest you get to shortwave listening is fighting the BBC World Service on 40, or if you regularly scan 41, 19, and 13 meters more often than 40, 20, and 15, the world of SWLing is something we should all know a little more about.

ELEMENT 1—CROSSWORD PUZZLE (Illustration 1)

- | | |
|--|---|
| Across | 22 VOA's Delano transmitter's state (abbr.) |
| 1 Belonging to a famous Soviet station | 23 Time station |
| 8 Typical shortwave mode (abbr.) | 24 High antenna location |
| 9 Announced | 27 Receiver (abbr.) |
| 10 Skyhook (abbr.) | 28 British radio organization—not BBC (abbr.) |
| 12 Shortwave "boundaries" (abbr.) | 29 Greek (abbr.) |
| 13 Signal skipping zone (abbr.) | 30 23 across' state (abbr.) |
| 14 Not me, but _____ | 31 VOA's IS—"_____ Doodle" |
| 15 SWL's bible (abbr.) | 32 Amateur roundtable (abbr.) |
| 17 Signal attenuation | |
| 20 DX signals usually travel over this | Down |
| 21 Radio interference (abbr.) | 1 U.S. propaganda station |
| | 2 Morning (abbr.) |

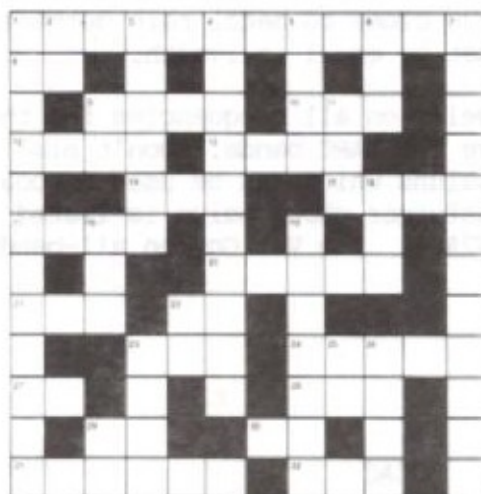


Illustration 1.

- | | |
|-------------------------------------|---------------------------------------|
| 3 Belonging to RAI | 18 Telegraphic regret |
| 4 Below shortwave | 19 Broadcast outlet (abbr.) |
| 5 Former clandestine island | 22 Radiotelegraphic code (abbr.) |
| 6 Tenth month (abbr.) | 23 Logging stations can be hard _____ |
| 7 HCJB's continent | 25 Old boy (abbr.) |
| 9 Sudanese prefix | 26 To desire QSL |
| 11 Immediately | 29 Morse "good night" |
| 16 Return postage requested (abbr.) | |

ELEMENT 4—TRUE-FALSE

- | | True | False |
|---|-------|-------|
| 1) Israel radio has broadcast in the slow-scan television mode. | _____ | _____ |
| 2) Radio Moscow regularly broadcasts on 40-meters a show about amateur radio. | _____ | _____ |
| 3) Private interests aren't allowed to operate shortwave broadcast stations in the U.S. | _____ | _____ |
| 4) Utility stations are owned by public utilities such as power and water companies. | _____ | _____ |
| 5) The planet Jupiter can be heard daily on 18, 22, and 27 MHz. | _____ | _____ |
| 6) Soviet jamming stations, intent on keeping "undesirable" broadcasts from being received in their country, legally identify themselves on CW. | _____ | _____ |
| 7) Radio Berlin International operates from West Berlin. | _____ | _____ |
| 8) The Voice of America is prohibited by Congress from broadcasting in any language but English. | _____ | _____ |
| 9) There is a shortwave broadcast band allocated at 11 meters. | _____ | _____ |
| 10) Radio Peace and Progress is a Soviet shortwave station. | _____ | _____ |
| 11) "Suomen Yleisradio" broadcasts from Samoa. | _____ | _____ |
| 12) SINPO is an acronym for the Special InterNational Programming Organization. | _____ | _____ |
| 13) "The Graveyard" is the SWL's nickname for 40-meters. | _____ | _____ |
| 14) In many countries, you have to be an SWL before you can become a ham. | _____ | _____ |
| 15) The <i>International Frequency List</i> is a publication listing in five volumes all of the world's radio stations. | _____ | _____ |
| 16) The "Worldwide TV-FM DX Association" is an organization specializing in VHF-UHF SWLing. | _____ | _____ |
| 17) Some countries require SWLs to license their receivers. | _____ | _____ |
| 18) WCC in Chatham MA, broadcasts news reports, in CW, on 6.376 MHz. | _____ | _____ |
| 19) Many ship stations have the same type of four-letter call-signs as broadcast stations, e.g., KXXX. | _____ | _____ |
| The U.S. AM broadcast band has only 23 channels. | | |

Fort Pierce Connection Update

I think New Years' Day is an appropriate time to give a report on the RAE Snowbirds' activities in Florida this year.

The regular 8:00 AM net on 14.340 MHz (Editor's note: the Ft. Pierce Connection) has been well attended so far this year. We have heard from 20 Erie stations and all of us down in Florida look forward to hearing a familiar voice and some of the latest happenings from back home.

Stations logged are: VE3ANN, W3AQY, KA3AUH, KZ3C, WB3DOM, N3FAW, KA3FZO, W3HLM, N3HPR, WB3IET, K3IVG, WA3KAZ, KA3KFQ, WB3KGT, KC3LV, KB3NK, W3QMY, W3TRW and W3ZBF.

- ♦ W3DKL John is set up with his TS-330 and some good antennas.
- ♦ W3AQY Mac is on the air with his usual good signal from the east coast.
- ♦ We have talked to Gary KA3FZO in Erie and Florida and all roads in-between!
- ♦ KA3KFP and KA3KFQ have a new tower and beam and are well settled 100 miles to the south of us.
- ♦ W3TPW Bert is doing well in Englewood and also helps in radio club projects in Florida.
- ♦ KZ3C and KA3VXP (Jim and Libby) are on the air from Englewood.
- ♦ KA4JKY George and myself were treated to a really great sailboat cruise at Christmas on Dick's sailing ham shack.
- ♦ The women fed us well and we had dolphins with us for most of the trip. We even worked KZ3C marine mobile.

Today, we had a nice talk with N3HPR/2 and others from Erie. Florida is a very flat area with a high water table so the two meter machines have very distant coverage. The 7.150 Holiday repeater easily covers 100 miles and can be used most of the time. We have 12 RAE members that can get together on this one machine.

For those of you that like hamfests, they have them all winter and the weather is always good.

To all the hams in the RAE -- all of us in Florida send our best season's greetings. Look for us on the bands this winter.

W3PIX, Dick

ELEMENT 5—HAM ACROSTIC

Guess the words defined and write them over the numbered dashes. Next, place each letter in the correct square in the puzzle. The black squares show word endings. The completed puzzle will form a statement relating to shortwave listening. (Illustration 2)

- A) Medium-wave antenna..... 28 50 42 51
- B) "The East is Red"..... 65 9 41 2 67
- C) A shortwave station's "tongue"..... 5 13 36 8 48 16 17 48
- D) Jammers produce this..... 59 18 4 15 31
- E) Old-style receiver component..... 62 58 60 12
- F) Effect of Radio Moscow report about Soviet farming on listeners..... 19 27 32 64
- G) Element missing from Radio Moscow's news programs..... 10 14 1 33 63
- H) Famous army radio station... 53 35 49
- I) Woodpecker's alleged purpose..... 55 24 25 39 38
- J) SWLs throw this when a rare station is QRM'd..... 43 66 3
- K) Engineering society..... 29 54 6 45
- L) What Germans call East Germany..... 37 40 57
- M) Spanish "I"..... 61 20
- N) Iraq amateur prefix..... 11 26
- O) Number of megahertz in SWL 90-meter band..... 21 22 23 56 47
- P) RTTY press station's test letters..... 44 34
- Q) Your author's former call suffix..... 7 30 52



Illustration 2.

THE ANSWERS

Element 1:

See Illustration 1A.

Element 2:

1-J, 2-S, 3-P, 4-F, 5-M, 6-I, 7-U, 8-R, 9-A, 10-T, 11-N, 12-B, 13-O, 14-D, 15-L, 16-G, 17-Q, 18-C, 19-E, 20-H.

Element 3:

(Reading from left to right) utilities, broadcast, tropics, clandestine; band, domestic, program, listen; music, religious, interval, language; government, propaganda, engineer, overseas; calibrate, foreign, relay, static.



Illustration 1A.

Element 4:

- 1) True—In a series of experimental transmissions during November, 1980. More SSTV broadcasts may take place this year.
- 2) True—Aren't they thoughtful!
- 3) False—WYFR and KGEI, among others, are privately owned.
- 4) False—They're commercial stations transmitting business or safety traffic.
- 5) True—Radio energy from the giant planet can be detected at those frequencies with the proper receiving gear.
- 6) True—Ironic, isn't it?
- 7) False—East Berlin.
- 8) False—Like most international broadcasters, the VOA transmits in dozens of languages.
- 9) True—25.600–26.100 MHz. Just below you-know-what.
- 10) True—Peacefully progressing toward what?
- 11) False—It's Finnish for Radio Finland.
- 12) False—It's a reception report form, similar to the amateur RST system. The letters stand for: Signal, Interference, Noise, Propagation, and Overall merit.
- 13) False—It's the term applied to the upper end of the U.S. AM broadcast band where many low-powered stations are grouped.
- 14) True—This is especially true in many eastern European countries where SWLs must obtain a certain number of amateur QSLs before they're allowed to transmit. So answer those SWL QSLs!
- 15) False—Amateur, maritime, experimental, and a few other types of stations aren't listed, but just about everyone else is. The ITU publishes it.
- 16) True—You can write them at PO Box 97, Calumet City IL 60409.
- 17) True—As a matter of fact, most countries slap a fee on radios and TVs—a way of raising revenues to subsidize government broadcasting.
- 18) True—Great code practice.
- 19) True—Confusing, isn't it?
- 20) False—One hundred and seven channels, but more are on the way as soon as the FCC can add more by pushing existing stations closer together.

Element 5:

See Illustration 2A.



Illustration 2A.

FCC ISSUED CALL SIGN UPDATE

THE FOLLOWING IS A LIST OF THE FCC'S MOST RECENTLY ISSUED CALL SIGNS AS OF JANUARY 1.

Press ENTER to continue (A to abort) -->

DISTRICT	GROUP A EXTRA	GROUP B ADVANCED	GROUP C TECH/GEN	GROUP D NOVICE
0	AA0KZ	KG0CI	N0UXC	KB0KVV
1	AA1EW	KD1LZ	N1NZA	KB1ANK
2	AA2MB	KF2MC	N2TFP	KB2PRF
3	AA3CU	KE3GE	N3NVF	KB3ALG
4	AC4YL	KQ4KY	++	KD4VFC
5	AB5JS	KJ5HK	++	KB5WQW
6	AB6PR	KN6EY	++	KD6QIP
7	AA7SX	KI7IV	++	KB7RLT
8	AA8JP	KF8YK	N8WMC	KB8OLY
9	AA9FP	KF9MQ	N9RSZ	KB9IGV
HAWAII	++	AH6MH	WH6KD	WH6CQB
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